

ON THE IDENTITY OF TWO SPECIES OF RHYPAROCHROMINAE
FROM ARGENTINA (HEMIPTERA: LYGAEIDAE)¹

James A. Slater

Abstract.—Two species described by Berg from Argentina in 1883 and 1884 and placed by him in the otherwise Palearctic genus *Tropistethus* have been restudied. Both species, *T. dubius* and *T. australis*, are considered to be distinct species in the genus *Cryphula*. A lectotype is selected for *Cryphula dubia* (Berg); redescriptions from type specimens are given for both species; a discussion is given of their relationships to other species of *Cryphula*. *Syngenicus* Berg 1883, listed as a provisional new generic name for *T. dubius*, is placed as a junior synonym of *Cryphula*. The lectotype of *Cryphula dubia* is figured.

In 1883 Berg described a new species of lygaeid from Argentina under the name *Tropistethus dubius*. Berg obviously had considerable doubt as to the correct generic position of this species as he stated that it might well represent a new genus and, indeed, went so far as to reserve the name *Syngenicus* for it in the event that it should prove to represent an undescribed genus. In the following year Berg (1884) described another new species from Argentina as *Tropistethus australis*. To my knowledge neither of these species has been subsequently discussed and the names only appear in faunal lists and catalogues (see Slater 1964).

Tropistethus Fieber is a Palearctic genus (nine species) in the tribe Antillocorini. I have recently been interested in the systematics and phylogeny of the Antillocorini of the Neotropics and have had an opportunity to examine the Berg types. As might have been anticipated neither species is congeneric with the Palearctic species of *Tropistethus*. Both species belong in the genus *Cryphula* Stål, a member of the rhyparochromine tribe Lethaeini. Both *dubius* and *australis* are, however, distinct from any described species of *Cryphula*.

Syngenicus Berg 1883 (type species *Tropistethus dubius*) thus becomes a junior synonym of *Cryphula* Stål (1874) (type species *Cryphula parallelogramma* Stål) NEW SYNONYMY.

Cryphula dubia (Berg) new combination

1883. *Tropistethus dubius* Berg pp. 265-266.

Berg described *dubius* from two males from Chacabuco ("Provincia Bon-aerensis") collected by Felix Lynch. I have examined both specimens which

¹ This work was supported by a grant from the National Science Foundation.

have identical labels saying (1) "Typus" (2) "Chacab. F. Lynch." Berg did not select a holotype and thus it is necessary to designate a lectotype. This is particularly important in the present instance as the two specimens probably are not conspecific.

Berg apparently thought he was dealing with brachypterous specimens. One syntype, indeed, is coleopteroid with only a narrow membrane vestige present. The second specimen, however, is a macropter with most of the membrane broken off, as is the distal portion of the right corium. There seems little doubt that Berg drew his description from the coleopter as he mentions the dark corial macula and testaceous legs which this specimen has but which is lacking on the mutilated macropter. Further a third label apparently in Berg's handwriting saying "*Tropistethus dubius* Berg" is on the pin with the coleopter. Accordingly this specimen is selected as lectotype and an appropriate label attached.

Redescription of Male Lectotype of *Cryphula dubia* (Berg)
(Figure 1)

Head, pronotum, scutellum, a large ovoid macula in center of corium, and antennal segments three and four dark reddish brown. Tylus yellowish. A large macula at each humeral pronotal angle which narrows mesad, extreme apex of scutellum, entire hemelytra except as indicated above, first and second antennal segments, labium and legs bright yellow. Forefemora infuscated with brownish on proximal three-fourths. Pleural and ventral surfaces completely shining or subshining, reddish brown. Head and pronotum strongly polished and shining. Dorsal surface, especially hemelytra, clothed with elongate, erect and conspicuous yellow hairs.

Head broad, eyes almost in contact with anterolateral pronotal angles; tylus broad distally reaching distal two-thirds of first antennal segment; head length .52¹, width .70, interocular space .50. Pronotum subquadrate, distance across anterior portion nearly as broad as that across humeri, anterior lobe conspicuously convex, posterior lobe narrow, lateral margins slightly sinuate; posterior margin shallowly concave, pronotum length .64, width .94. Scutellum length .58, width .58. Clavus and corium completely fused, commissure meeting evenly down midline, membrane vestige a narrow strip along apical margin of hemelytron and not extending posterior to caudolateral corner; lateral margins of hemelytron explanate and moderately arcuate, hemelytron length 1.40. Metathoracic scent gland auricle rather elongate, subtruncate, irregularly curving posteriorly. Evaporative area with distal (=dorso-lateral) margin evenly truncate, lacking shining intrusion anteriorly. Forefemora strongly incrassate, armed below near distal end with three short sharp spines followed proximally by two or three

¹ All measurements are in millimeters.



Fig. 1. *Cryphula dubia* (Berg) Lectotype. Dorsal view.

very elongate conspicuous spines. All tibiae with coarse spines present over surface. Antenna stout, typical of genus, antennal segment lengths I .28, II .48, III .46, IV .58. Labium probably attaining hind coxae, length labial segments I .40, II .32, III .36, IV .30.

The lectotype of *Cryphula dubia* has numerous elongate, erect hairs on dorsal surface. It will run to *Cryphula abortiva* Barber at couplet four in Scudder's (1962) key to the species of *Cryphula*. It is, however, not closely related to *abortiva*, differing in having pale testaceous hemelytra with a dark median macula, pale yellow humeral maculae, pale first and second antennal segments and a highly polished pronotum. *C. dubia* is rather similar in habitus to the recently described *Cryphula bennetti* Baranowski and Slater by virtue of the pale first and second antennal segments and legs, dark corial macula, pale humeral spots and dark scutellum. *C. bennetti*, however, lacks elongate hairs on the dorsal surface, has the rows of hemelytral punctures outlined as a series of dark stripes, has much larger humeral maculae, more evenly arcuate lateral pronotal margins and a white posterior metapleural lobe.

The other syntype of *dubius* is in poor condition. In addition to the broken membrane the antennae, fore tibiae and tarsi are all missing, and the specimen is greasy. It appears to be a species of *Cryphula* although in habitus it also resembles species of *Valtissius* Barber. The poor condition of the specimen makes it inadvisable to attempt to place it further taxonomically.

Cryphula australis (Berg) new combination

1884. *Tropisthetus* [sic] *australis* Berg, pp. 187–188.

Berg described *australis* from a single female from "Tandil" collected by "Dr. Holmberg." The holotype is a conventional looking *Cryphula* and runs in Scudder's (1962) key to *Cryphula apicata* (Distant) at couplet 6. Through the kindness of Mr. W. R. Dolling of the British Museum I have been able to examine Distant's lectotype of *apicata*, a male which was described from "S. Gerónimo, Guatemala." The types of *australis* and *apicata* are not conspecific. In *australis* the lateral pronotal margins are distinctly sinuate whereas in *apicata* they are evenly although narrowly arcuate. The membrane of *apicata* is dark brown with contrastingly pale veins, that of *australis* is white with a very large chocolate brown macula occupying most of the center of the surface. The posterior lobe of the metapleuron of *australis* is white and strongly contrasting with the anterior lobe, whereas in *apicata* the posterior metapleural lobe is reddish brown and concolorous with the anterior lobe. In *apicata* the metathoracic scent gland auricle is more elongate than it is in *australis* and slightly enlarged and subtruncate on the distal end, whereas it is subacute in *australis*. The adjacent evaporative area of *apicata* is invaded near its anterodorsad edge by a mesally

projecting "finger" of shining surface whereas in *australis* the dorsolateral margin of the evaporative area is straight throughout. *C. apicata* is extremely closely related to *C. nitens* Barber with which it agrees in all of the above characteristics. In fact, the specific status of *apicata* and *nitens* needs further study. Barber (1955) differentiated *nitens* from *apicata* by the former having the antennae "provided with several long semi-erect setae," by having "less conspicuous veins of the corium" and by differences in the color of the pronotum. I have examined specimens of *nitens* from Utah, California and Texas and cannot find differences in antennal hairs or degree of corial color differentiation between these specimens and the lectotype of *apicata*. *C. apicata* does have the pale coloration of the posterior pronotal lobe more prominently and extensively developed. I think the status of *nitens* questionable and in need of careful analysis.

Redescription of Female Holotype of *Cryphula australis*

Head, pronotum (except anterior margin, humeral angles and irregular extensions over posterior lobe on either side of midline), scutellum (except apex) and a very large ovoid distally irregular macula in center of hemelytral membrane reddish to chocolate brown. Remainder of dorsal surface white to light testaceous, hemelytral punctures darker brown forming irregular dark stripes. Nearly uniformly dark reddish brown below, shining, with dorsal portion of posterior propleural lobe and all of hind lobe of metapleuron a strongly contrasting white. Legs light yellow with anterior femora yellowish brown on proximal three-fourths. Dorsal surface nearly glabrous lacking elongate upstanding hairs.

Head slightly declivent, conspicuously convex between eyes, latter in contact with anterolateral angles of pronotum, head length .58, width .76, interocular space .50. Pronotum with lateral margins narrowly but conspicuously explanate and markedly sinuate, posterior margin shallowly concave before scutellum, pronotum length .68, width 1.24. Scutellum length .74, width .76. Claval commissure length .36. Lateral margins of corium explanate and evenly arcuate. Distance apex clavus-apex corium .54; distance apex corium-apex membrane .58. Metathoracic scent gland auricle finger-like tapering distally, evaporative area with dorsolateral margins evenly truncate, complete. Forefemora strongly incrassate, armed below near distal ends with two very sharp spines followed proximally by three conspicuous elongate hairs. Antennae missing. Labium extending well between and probably slightly beyond posterior margin of mesocoxae, perhaps reaching metacoxae, length labial segments I .38, II .40, III .36, IV .30; total length 3.36.

Redescription of Lectotype of *Cryphula apicata* Distant

Head, major part of pronotum and scutellum dark chocolate brown. Anterior marginal area of pronotum, elongate elliptical macula in area of humeri and three conspicuous spots along posterior margin of pronotum white to very pale testaceous. Hemelytra variegated, veins conspicuously white or pale yellow, intervening areas reddish brown mottled with testaceous and with a conspicuous small pale elliptical macula present near apical margin between radius and medius. Membrane brown with veins a strikingly contrasted translucent white. Antennae yellowish, distal third of segment three and all of segment four darker. Legs pale reddish brown becoming testaceous distally. Ventral and pleural surfaces including posterior lobe of metapleuron bright red brown but with pale yellow to white coloration present along dorsal portion of posterior lobe of propleuron. Dorsal surface nearly glabrous lacking conspicuous upstanding hairs.

Head slightly declivent, moderately convex between eyes, tylus broad reaching at least to distal fourth of first antennal segment, head length .50, width .72, interocular space .46. Pronotum subquadrate, lateral margins narrowly explanate evenly curving or gently arcuate from humeri to anterolateral angles, pronotum length .76, width 1.22. Scutellum length .76, width .72. Claval commissure length .38. Corium very slightly arcuate, nearly straight for greater portion of length. Distance apex clavus-apex corium .70, distance apex corium-apex membrane .44. Metathoracic scent gland auricle elongate slightly broadened and subtruncate at distal end, evaporative area with deep finger-like shining intrusion into dorsolateral margin near anterior end of metapleuron. Forefemoral armature and labial length obscured, latter apparently reaching at least well between mesocoxae. Antennal segment lengths I. 24, II .48, III .38, IV .46. Total length of body 3.32.

Acknowledgments

I am indebted to Dr. Luis De Santis (Universidad Nacional de la Plata, Argentina) and to Mr. W. R. Dolling (British Museum of Natural History) for the loan of type material from their respective institutions. My appreciation is extended to Mr. Steven Thurston (formerly University of Connecticut) for preparation of the dorsal view illustration of *Cryphula dubia* and to Mrs. Betty Slater for aid in the preparation of the manuscript.

Literature Cited

- Barber, H. G. 1955. The genus *Cryphula* Stål, with the description of two new species (Heteroptera: Lygaeidae). Journ. New York Ent. Soc. 63:135-137.
- Baranowski, R. M. and J. A. Slater. In press. Notes on the biology of two species of

Cryphula (Hemiptera, Lygaeidae) in Trinidad with the description of a new species. Florida Entomologist.

Berg, C. 1883. Addenda et emendanda ad Hemiptera Argentina. An. Soc. Cient. Argent. 15:241-269.

———. 1884. Addenda et emendanda ad Hemiptera Argentina. Bonariae: Pauli E. Coni pp. 1-213.

Scudder, G. G. E. 1962. The world Rhyparochrominae (Hemiptera: Lygaeidae) I. New synonymy and generic changes. Canad. Ent. 94:764-773.

Slater, J. A. 1964. A Catalogue of the Lygaeidae of the World. University of Connecticut, 2 volumes, 1668 pp.

Stål, C. 1874. Enumeratio Hemipterorum pt. 4, K. Svenska Vetensk. Akad. Handl. 12:1:1-186.

Systematic and Evolutionary Biology, University of Connecticut, Storrs, Connecticut 06268.

Received for publication January 26, 1979.